WHAT IS CLAIMED IS:

1. A method for implementing downlink JD (Joint Detection) in TDD CDMA communication systems to be performed in the UE, comprising the steps of:

(a) receiving downlink signal from a network system in a specific timeslot;

(b) obtaining an active primary and secondary channelisation codes in the specific timeslot, through processing the downlink signal;

(c) acquiring the initial ACC (Active Channelisation Codes) information for use in implementing JD in next radio frame, through implementing a JD algorithm on the downlink signal by using the primary and secondary channelisation codes.

2. The method according to claim 1, wherein step (b) includes:

(b1) performing channel estimation on the downlink signal to get the active primary channelisation codes in the specific timeslot;

(b2) determining the active secondary channelisation codes in the specific timeslot according to the association between the primary and secondary channelisation codes predefined in the channelisation codes allocation rule.

3. The method according to claim 1, wherein step (b) includes:

(b1) performing channel estimation on the downlink signal to get the active primary channelisation codes in the specific timeslot;

(b2) determining the active secondary channelisation codes in the specific timeslot according to indication information of the secondary channelisation codes constructed by reserved bits in specific downlink information.

4. The method according to claim 3, wherein the specific downlink information is FPACH (Fast Physical Access Channel) information.

5. The method according to claim 1, wherein step (c) includes:

performing JD algorithm on the downlink signal transferred over an ACC dedicated channel by using the primary and secondary channelisation codes to get the initial ACC information; wherein the ACC dedicated channel is the pre-selected code channels in the specific timeslot.

6. The method according to claim 5, wherein the pre-selected code channels are two code channels, and the midamble corresponding to a pair of channelisation codes used by the two code channels is different from the midamble used by BCH, and different from the midambles reserved by the base station when BCH adopts transmit diversity.

7. The method according to claim 6, further comprising the step of:

performing JD algorithm on the ACC dedicated channel in the next radio frame by using the initial ACC information to get the ACC information for subsequent radio frame;

performing a JD algorithm on the signal received in the next radio frame from the network system by using the initial ACC information to demodulate the information from the network system.

8. The method according to claim 6 or 7, further comprising the step of:

performing JD algorithm on the ACC dedicated channel in a radio frame by using the ACC information obtained in a previous radio frame to get the ACC information for the subsequent radio frame;

performing JD algorithm on the signal received in the radio frame from the network system by using the ACC information obtained in the previous radio frame to demodulate the information from the network system.

9. The method according to claim 8, further comprising the step of:

receiving the system information from the network system;

determining whether there is a FPACH according to the system information;

determining whether the FPACH is activated according to the midamble shift in the system information, if there is the FPACH.

10. The method according to claim 9, further comprising the step of:

determining whether the network system adopts common midamble to transmit signal, according to the system information;

determining whether the FPACH is activated according to the association between the number of channelisation codes and the midamble shift and the ACC information, if common midamble is adopted to transmit signal.

11. The method according to claim 9, further comprising the step of:

determining whether the network system adopts common midamble to transmit signal according to the system information;

determining whether the FPACH is activated according to the association between the specific midamble designated in the system information and the FPACH, if common midamble is adopted to transmit signal.

12. The method according to any of claim 9 to 11, further comprising the step of:

performing a JD algorithm on the signal received in the downlink timeslot received from the network system, according to the ACC information and the channelisation codes of the active FPACH.

13. The method according to claim 12, further comprising the step of:

determining whether the network system adopts beam forming to transmit signal, according to the system information;

if beam forming is adopted to transmit signal, performing a JD algorithm on the signal received in the downlink timeslot from the network system by using the ACC corresponding to the detected midamble in the ACC information to demodulate the information from the network system.

14. The method according to claim 13, further comprising the step of:

reading the ACC information transferred by the network system over the ACC dedicated channel, at least in every radio frame.

15. A method of implementing downlink JD for use in TDD CDMA communication network system, comprising the steps of:

predicting ACC information of each timeslot in a next radio frame;

transmitting the ACC information in a specific timeslot via an ACC dedicated channel constructed by pre-selected code channels.

16. The method according to claim 15, further comprising the step of:

only permitting a new UE to access at the header of a second frame and subsequent frame in a TTI (transmission time interval); wherein the pre-selected code channels are two code channels in the specific timeslot, and the midamble corresponding to a pair of channelisation codes used by the two code channels is different from the midamble used by BCH, and is also different from the midambles reserved by the BS when BCH adopts transmit diversity.

17. The method according to claim 16, wherein:

only permitting the UE to access at the beginning of next TTI, if the TTI is the allowable shortest time interval in the communication protocol.

18. The method according to claim 17, wherein the shortest time interval is 10ms.

19. The method according to claim 16, further comprising the step of:

allocating a primary channelisation code together with corresponding secondary channelisation code to a UE so that the UE can obtain the secondary channelisation code according to the detected primary channelisation code.

20. The method according to claim 16, further comprising the step of:

embedding information of secondary channelisation codes to be used in the specific timeslot in the next radio frame into the reserved bits of FPACH information so that the UE can obtain the information of secondary channelisation codes from the FPACH information.

21. The method according to claim 19 or 20, further comprising the step of:

designating a specific midamble to the FPACH;

embedding the designation information into the system information.

22. A UE, comprising:

a receiving unit, for receiving downlink signal from a network system in a specific timeslot;

a processing unit, for processing the downlink signal to get an active primary and secondary channelisation codes in the specific timeslot;

an executing unit, for executing a JD algorithm on the downlink signal by using the primary and secondary channelisation codes to get initial ACC information for use in implementing JD in next radio frame.

23. The UE according to claim 22, wherein the processing unit includes:

primary channelisation codes determining unit, for carrying out channel estimation on the downlink signal to get the active primary channelisation codes in the specific timeslot;

secondary channelisation codes determining unit, for determining the active secondary channelisation codes in the specific timeslot according to the association between the primary and secondary channelisation codes predefined in the channelisation codes allocation rule.

24. The UE according claim 22, wherein the processing unit includes:

primary channelisation codes determining unit, for carrying out channel estimation on the downlink signal to get the active primary channelisation codes in the specific timeslot;

secondary channelisation codes determining unit, for determining the active secondary channelisation codes in the specific timeslot according to the indication information of the secondary channelisation codes constructed by the reserved bits in the FPACH information.

25. The UE according to claim 22, wherein the executing unit carries out the JD algorithm on the downlink signal transmitted by the network system over an ACC dedicated channel, by exploiting the primary and secondary channelisation codes to get the initial ACC information;

wherein the ACC dedicated channel is pre-selected code channels in the specific timeslot.

26. The UE according to claim 25, wherein the pre-selected code channels are two code channels, and the midamble corresponding to a pair of channelisation codes used by the two code channels is different from the midamble used by BCH, and is also different from the midambles reserved

by the base station when BCH adopts transmit diversity.

27. The UE according to claim 26, wherein:

the executing unit is used for executing JD algorithm on the ACC dedicated channel in the next radio frame, by using the initial ACC information to get the ACC information for a subsequent radio frame; and for executing a JD algorithm on the signal received in the next radio frame from the network system by using the initial ACC information to demodulate the information from the network system.

28. The UE according to claim 27, wherein the receiving unit receives the system information from the network system, the UE further comprising:

a determining unit, for determining whether there exists a FPACH channel according to the system information, and determining whether the FPACH channel is activated according to the midamble shift in the system information.

29. The UE according to claim 28, wherein:

the determining unit judges whether the network system adopts common midamble to transmit signal according to the system information, and judges whether the FPACH channel is activated according to the association between the number of channelisation codes and midamble shift and the ACC information.

30. The UE according to claim 28, wherein:

the determining unit also judges whether the network system adopts common midamble to transmit signal according to the system information, and judges whether the FPACH channel is activated through channel estimation according to the association between the designated specific

midamble in the system information and the FPACH.

31. The UE according to any one of claim 28 to 30, wherein:

the executing unit performs a JD algorithm on the signal received in the downlink timeslot from the network system according to the ACC information and the channelisation codes of the FPACH channel to demodulate the information from the network system.

32. The UE according to claim 31, wherein:

the determining unit also judges whether the network system adopts beam forming to transmit signal according to the system information;

the executing unit performs a JD algorithm on the signal received in the downlink timeslot from the network system by using the ACC information and the active channelisation codes corresponding to the detected midamble to demodulate the information from the network system.

33. The UE according to claim 32, wherein:

the executing unit reads the ACC information transferred by the network system via the ACC dedicated channel at least in every radio frame.

34. A network system, comprising:

a detecting unit, for predicting an ACC information of each timeslot in the next radio frame;

a transmitting unit, for transmitting the ACC information in a specific timeslot via an ACC dedicated channel constructed by the pre-selected code channels.

35. The network system according to claim 34, further comprising:

an allocating unit, for only permitting a new UE to access at header of

a second frame and subsequent frame in a TTI;

wherein the pre-selected code channels are two code channels in the specific timeslot, and the midamble corresponding to a pair of channelisation codes used by the two code channels is different from the midamble used by BCH broadcast, and also different from the midamble reserved by the base station when BCH adopts transmit diversity.

36. The network system according to claim 35, wherein:

only permitting the new UE to access at the beginning of next TTI, if the TTI is the allowable shortest time interval in the communication protocol.

37. The network system according to claim 36, wherein:

the allocating unit allocates a primary channelisation code along with its corresponding secondary channelisation code to the UE, so that the UE can obtain the secondary channelisation code according to the detected primary channelisation code.

38. The network system according to claim 37, further comprising:

an embedding unit, for embedding the secondary channelisation codes information to be used in the specific timeslot in the next radio frame into the reserved bits in the FPACH information so that the UE can obtain the secondary channelisation codes information from the FPACH information.

39. The network system according to claim 37 or 38, further comprising:

a designating unit, for designating a specific midamble to the FPACH channel;

and the embedding unit embeds the designation information into the system information.